

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions and listings:

1. (currently amended): ~~[[A]]~~ An isolated polynucleotide comprising a sequence encoding an engineered zinc finger protein, the engineered zinc finger protein comprising ~~3 or more 2-finger zinc finger modules~~ six zinc fingers, each zinc finger comprising a recognition region, wherein the 2-finger zinc finger modules are joined to each other by linkers of 6 or more amino acid residues, and further wherein the engineered zinc finger protein specifically binds to a target site in cellular chromatin such that expression of single gene is regulated the amino acid sequence of the recognition regions, in amino- to carboxy-terminal order, are as follows:
RSDHLSR (SEQ ID NO:1); DNRDRTK (SEQ ID NO:2); DRKTLIE (SEQ ID NO:3);
TSSGLSR (SEQ ID NO:4); RSDHLSE (SEQ ID NO:5); TSSDRTK (SEQ ID NO:6).
2. (currently amended): The polynucleotide of claim 1, wherein the target site ~~comprises 18 base pairs~~ is in a *chk2* gene.
3. (currently amended): The polynucleotide of ~~any of the preceding claims~~ claim 1, further comprising a sequence encoding at least one functional domain.
4. (original): The polynucleotide of claim 3, wherein the functional domain comprises a transcriptional activation domain.
5. (original): The polynucleotide of claim 3, wherein the functional domain comprises a transcriptional repression domain.
6. (original): The polynucleotide of claim 3, wherein the functional domain comprises a nuclease domain.
7. (currently amended): A polypeptide encoded by ~~any of the polynucleotides of the preceding claims~~ the polynucleotide of claim 1.

8. (currently amended): A method of modulating expression of a chk2 gene ~~a single gene~~ in a cell; the method comprising the steps of:

administering a polynucleotide according to ~~any of claims 1-6 or a polypeptide according to claim 7~~ claim 2 to the cell ~~under conditions such that~~ wherein the polynucleotide expresses the zinc finger protein in the cell and the zinc finger protein binds to the target site, thereby modulating expression of the single gene.

9. (currently amended): The method of claim 8, wherein expression of the single chk2 gene is repressed.

10. (currently amended): The method of claim 8, wherein expression of the single chk2 gene is activated.